

ABSTRACT

The present invention provides methods and compositions comprising a population of alphavirus replicon particles comprising two or more isolated nucleic acids selected from 1) an isolated nucleic acid encoding an *env* gene product or an immunogenic fragment thereof of a human immunodeficiency virus, 2) an isolated nucleic acid encoding a *gag* gene product or an immunogenic fragment thereof of a human immunodeficiency virus, wherein the *gag* gene product or immunogenic fragment thereof is modified to inhibit formation of virus-like particles containing the 5 *gag* gene product or the immunogenic fragment thereof and their release from a cell, and 3) an isolated nucleic acid encoding a *pol* gene product or an immunogenic fragment thereof of a human immunodeficiency virus, wherein the *pol* gene product or immunogenic fragment thereof is modified to inhibit protease, integrase, RNase H and/or reverse transcriptase activity, and wherein the nucleic acids are each contained 10 within a separate alphavirus replicon particle.

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